

# COVID-19 Scientific and Public Health Policy Update<sup>1</sup> – (11 August 2020)

*In addition to our Weekly Outbreak Brief on the spread of COVID-19 and the actions that Africa CDC is taking to help African Union Member States. Africa CDC shares a weekly brief detailing the latest developments in scientific knowledge and public health policy from around the world, as well as updates to the latest guidance from WHO and other public health agencies. Contents of this document are not intended to serve as recommendations from the Africa CDC; rather, it is a summary of the scientific information available in the public space to Member States. It is important to note that the outbreak is evolving rapidly and that the nature of this information will continue to change. We will provide regular updates to ensure Member States are informed of the most critical developments in these areas.*

## A. Executive summary

- A study investigated the genetic diversity and evolution of SARS-CoV-2 during the early outbreak months in Africa. Results revealed a high prevalence of the D614-G spike protein amino acid mutation (82.61%) among the African strains. Findings suggest upscaling of NGS sequencing platforms across Africa to enhance surveillance and aid control efforts of SARSCoV-2 in Africa.
- Several studies report on the viral load differences between asymptomatic and symptomatic individuals with the SARS-CoV-2 infection. Results of two studies indicate a similar distribution of viral loads in asymptomatic and symptomatic individuals. One study suggests isolation of asymptomatic patients should be performed regardless of symptoms. Another study suggests that existing testing modalities that have been validated for detection of SARS-CoV-2 RNA in symptomatic patients should perform similarly in individuals without symptoms at the time of testing.
- A mathematical modelling study estimating the SARS-CoV-2 viral load emitted by individuals breathing normally or coughing, and the concentrations expected in the simulated room at different ventilation rates, suggests that strict respiratory protection may be needed when there is a chance to be in the same small room with an individual, whether symptomatic or not, especially for a prolonged period.
- A seroprevalence study conducted in Nigeria indicates that the population in Niger state is still susceptible for more infection and transmission of the virus. Further, a serosurvey conducted in Malawi indicates a high seroprevalence among asymptomatic health care workers.

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<sup>1</sup> This update compiled for use by Africa CDC and African Union Member States and is developed in collaboration with the World Health Organization - Regional Office for Africa. **This is a preliminary summary of information and not considered policy, guidance, or final conclusions of the Africa CDC or the African Union.**

## B. New guidelines and resources

Since 25 July 2020,

- Africa CDC has published new guidance on:
  - [Strategies for managing acute shortages of personal protective equipment during COVID-19 pandemic.](#)
- WHO has published new guidance and resources on:
  - [Estimating mortality from COVID-19;](#)
  - [Status of environmental surveillance for SARS-CoV-2 virus;](#)
  - [Public health considerations while resuming international travel;](#)
  - [Safe Eid al Adha practices in the context of COVID-19: Interim guidance;](#)
  - [Considerations for implementing mass treatment, active case-finding and population-based surveys for neglected tropical diseases in the context of the COVID-19 pandemic;](#)
  - [Water, sanitation, hygiene, and waste management for SARS-CoV-2, the virus that causes COVID-19; Considerations for the provision of essential oral health services in the context of COVID-19;](#)
  - [WHO COVID-19 Preparedness and Response Progress Report - 1 February to 30 June 2020;](#)
  - [COVAX, the ACT-Accelerator vaccines pillar;](#)
  - [The COVAX facility;](#)
  - [Global surveillance of COVID-19: WHO process for reporting aggregated data;](#)
  - [Public health surveillance for COVID-19: interim guidance;](#)
- US CDC has published new and updated guidance and resources on:
  - [Operational Considerations for Schools;](#)
  - [Interim Operational Considerations for Implementing the Shielding Approach to Prevent COVID-19 Infections in Humanitarian Settings; Isolate If You Are Sick;](#)
  - [Resources for Refugee Resettlement Service Providers;](#)
  - [Operational Considerations for Maintaining Essential Services for and Providing Maternal, Newborn, and Child Healthcare in Low-Resource Countries;](#)
  - [Cleaning and Disinfecting Your Facility;](#)
  - [Operational Considerations for the Identification of Healthcare Workers and Inpatients with Suspected COVID-19 in non-US Healthcare Settings; What to Know About HIV and COVID-19;](#)
  - [Community Mitigation;](#)
  - [Operational Considerations for Infection Prevention and Control in Outpatient Facilities: non-U.S. Healthcare Settings;](#)
  - [Visiting Parks and Recreational Facilities;](#)
  - [Hiring In-home services or repairs;](#)
  - [Doctor Visits and Getting Medicines;](#)

- [Toolkit for Correctional and Detention Facilities; Clinical Mitigation \(Non-US Settings\);](#)
- [Toolkit for People Experiencing Homelessness;](#)
- [Considerations for Retirement Communities and Independent Living Facilities;](#)
- [Managing Investigations During an Outbreak;](#)
- [Returning to Work;](#)
- [Implementing Filtering Facepiece Respirator \(FFR\) Reuse, Including Reuse after Decontamination, When There Are Known Shortages of N95 Respirators;](#)
- [Markets: Operational considerations for COVID-19 mitigation measures in low resource settings;](#)
- [Case Investigation and Contact Tracing in Non-healthcare Workplaces: Information for Employers;](#)
- [COVID-19 Employer Information for Bus Transit Operators; After You Travel;](#)
- [Operational Considerations for Adapting a Contact Tracing Program to Respond to the COVID-19 Pandemic;](#)
- [Road Travel Toolkit for Transportation Partners;](#)
- [Homelessness and COVID-19 FAQs.](#)
- ECDC has published new resources on:
  - [COVID-19: EU guidance for cruise ship operations;](#)
  - [COVID-19 in children and the role of school settings in COVID-19 transmission;](#)
  - [Infographic: COVID-19 in children and the role of schools](#)
- FDA has issued press releases on:
  - [FDA Authorizes First Tests that Estimate a Patient's Antibodies from Past SARS-CoV-2 Infection;](#)
  - [FDA Posts New Template for At-Home and Over-the-Counter Diagnostic Tests for Use in Non-Lab Settings, Such as Homes, Offices or Schools](#)
- PHE has issued resources on:
  - [COVID-19: guidance for hostel services for people experiencing homelessness and rough sleeping](#)
- Social Sciences in Humanitarian Action (SSHAP) has issued resources on:
  - [Key Considerations: Covid-19 RCCE Strategies for Cross-Border Movement in Eastern and Southern Africa](#)
- Frontline AIDS has issued a resource on:
  - [Technical brief on COVID-19 and HIV programming](#)
- WFP has issued a resource on:
  - [Joint WFP and UNICEF Multisectoral Checklist for School Reopening and School based Nutrition in the context of COVID-19](#)
- Global Polio Eradication Initiative has issued a resource on:

- [Interim guidelines for frontline workers on safe implementation of house-to-house vaccination campaigns \(25 June 2020\) - In the context of COVID-19](#)
- The full list of latest guidance and resources from WHO and other public health institutions can be found in this [link](#).

## C. Scientific updates

### Basic Science

- This cohort study reports on the viral load differences between asymptomatic and symptomatic SARS-CoV-2 infection in 303 patients at a community treatment centre in Korea. [Results indicate Ct values in asymptomatic patients were similar to those in symptomatic patients. Findings suggest isolation of asymptomatic patients should be performed regardless of symptoms.](#)
- A retrospective study compares viral loads of 32,480 symptomatic and asymptomatic individuals. [Results indicate similar distributions of viral load in patients with or without symptoms at the time of testing during the local peak of the epidemic. Findings suggest that existing testing modalities that have been validated for detection of SARS-CoV-2 RNA in symptomatic patients should perform similarly in individuals without symptoms at the time of testing.](#)
- A study reports on the environmental (air and surface) contamination with SARS-CoV-2 in isolation rooms housing individuals testing positive for SARS-CoV-2. 70.6% of surface samples and 63.2% of in-room air samples tested positive by RT-PCR. [Findings indicate significant environmental contamination in rooms where patients infected with SARS-CoV-2 are housed and cared for, regardless of the degree of symptoms or acuity of illness.](#)
- A systematic literature review reports on the clinical and laboratory significance of detecting SARS-CoV-2 RNA in blood. [Results indicate that the viral RNA was detectable at low viral loads in a minority of serum samples collected in acute infection, but was not associated with infectious SARS-CoV-2. Findings from this study helps to inform biosafety precautions for handling blood products from patients with current or previous COVID-19.](#)
- A study investigated the genetic diversity and evolution of SARS-CoV-2 during the early outbreak months in Africa using whole genome sequences. [Results revealed a rapidly diversifying viral population with a high prevalence of the D614-G spike protein amino acid mutation \(82.61%\) among the African strains. Findings suggest upscaling of NGS sequencing platforms across Africa to enhance surveillance and aid control efforts of SARSCoV-2 in Africa. \(Not Peer Reviewed\).](#)
- This study analysed on four complete SARS-CoV-2 genome sequences obtained from patients confirmed to have COVID-19 in Stockholm, Sweden, in late April. [Results indicates a variant at position 23463 was found for the first time in one genome. It changes an arginine \(R\) residue to histidine \(H\) at position 364 in the S1 subunit of the spike protein. Researchers suggest more investigation is needed in order to ensure that the spread of different types of SARS-CoV-2 is fully characterized. \(Not peer reviewed\).](#)

## Epidemiology

- This cross-sectional study reports on the prevalence of SARS-CoV-2 among 2,787 asymptomatic health care workers. [Among HCWs, 5.4% from COVID-19 units and 0.6% from non-COVID units had RT-PCR test results positive for SARS-CoV-2. Findings suggest the 4.8% difference between COVID-19-facing and non-COVID-19-facing HCWs potentially indicates transmission from patients or co-workers.](#)
- An observational cohort study reports on the prevalence of antibodies against SARS-CoV-2 in health-care workers and the proportion of seroconverted health-care workers with previous symptoms of COVID-19. [Results indicate the prevalence of health-care workers with antibodies against SARS-CoV-2 was low \(4.02%\) but higher than in blood donors \(3.04%\). Findings suggest that the risk of SARS-CoV-2 infection in health-care workers was related to exposure to infected patients and more than half of seropositive health-care workers reported symptoms attributable to COVID-19.](#)
- A cross sectional study reports on the COVID-19 seroprevalence, patterns, dynamics, and risk factors in Niger state in Nigeria. [The seroprevalence of COVID-19 was found to be 25.41% and 2.16% for the positive IgG and IgM respectively with a seroprevalence of 37.21% among health care workers. Findings indicate the population in Niger state is still susceptible for more infection and transmission of the virus. \(Not peer reviewed\).](#)
- This SARS-CoV-2 serosurvey was conducted among 500 asymptomatic health care workers (HCWs) to estimate the cumulative incidence of SARS CoV-2 infection in Blantyre city, Malawi. [The seroprevalence among HCW was found to be 12.3%. The high seroprevalence of SARS-CoV-2 antibodies among HCWs and the discrepancy in the predicted versus reported deaths suggests an early exposure but slow progression of COVID-19 epidemic in urban Malawi. Findings further suggest the urgent need for development of locally parameterised mathematical models to more accurately predict the trajectory of the epidemic. \(Not peer reviewed\).](#)
- This study reports on the Age-Related Differences in Nasopharyngeal SARS-CoV-2 Levels. [Results indicate children younger than 5 years with mild to moderate COVID-19 have high amounts of SARS-CoV-2 viral RNA in their nasopharynx compared with older children and adults. Findings suggest young children can potentially be important drivers of SARS-CoV-2 spread in the general population, as has been demonstrated with respiratory syncytial virus, where children with high viral loads are more likely to transmit.](#)

## Care and Treatment

An adaptive, multicenter, open label, randomized, phase II/III clinical trial reports on the preliminary assessment of the efficacy and safety of AVIFAVIR in 60 hospitalized individuals with PCR confirmed COVID-19. [Findings indicate that AVIFAVIR enabled SARS-CoV-2 viral clearance in 62.5% of patients within 4 days, and was safe and well-tolerated. \(Not peer reviewed\).](#)

## Vaccines

- This study evaluated the effect of the SARS-CoV-2 mRNA-1273 vaccine on viral replication in both the upper and lower airways in nonhuman primates. [Findings indicate that vaccination of nonhuman primates with mRNA-1273 induced robust SARS-CoV-2 neutralizing activity, rapid protection in the upper and lower airways, and no pathologic changes in the lung.](#)
- This study reports on the immunogenicity and protective efficacy of a single dose of adenovirus serotype 26 (Ad26) vector-based vaccines expressing the SARS-CoV-2 spike (S) protein in 52 nonhuman primates. [Results indicate the optimal Ad26 vaccine induced robust neutralizing antibody responses. The data demonstrates robust single-shot vaccine protection against SARS-CoV-2 in nonhuman primates. The vaccine is currently being evaluated in clinical trials.](#)
- A randomized, observer-blinded, placebo-controlled, phase 1 trial in 131 healthy adults reports on the First-in-Human Trial of a SARS CoV 2 Recombinant Spike Protein Nanoparticle Vaccine (VX-CoV2373). [Findings suggest that the vaccine may confer protection and support transition to efficacy evaluations to test this hypothesis.](#) (Not peer reviewed)

## Diagnostics

- A study evaluating laboratory approaches using viral RNA detection on swabs and rapid serological tests in 516 patients (192 symptomatic or paucisymptomatic- S/P and 324 asymptomatic- As) reports that the molecular positive fraction equal to 12% among S/P and 15.4% in As. Among subsets, [findings report serologically positive results, corresponding to 35% for S/P and 38% for As. And significantly higher seropositivity in older symptomatic patients. It has been observed that a dual approach of serological and molecular tests detects a higher absolute number of disease cases in a pandemic context.](#)
- An evaluation study comparing point of care (POC) nucleic acid amplification testing (NAAT) in 149 participants with parallel combined nasal/throat swabbing for POC versus standard lab RT-PCR testing. [Results suggest the median time to a result is 2.6 hours vs 26.4 hours with 21.5% positive and 78.5% negative. POC testing increases isolation room availability, avoids bed closures, allows discharge to care homes and expedites access to hospital procedures.](#)

## Non-Pharmaceutical Interventions

- A cross sectional study assessed the association of mask wearing with face touching behaviour among 4,699 individuals before the COVID-19 pandemic and 2,887 individuals during the pandemic in public areas. [Findings suggest mask wearing was associated with reduced face-touching behavior, especially touching of the eyes, nose, and mouth, which may prevent contact transmission of COVID-19 among the general population in public areas.](#)

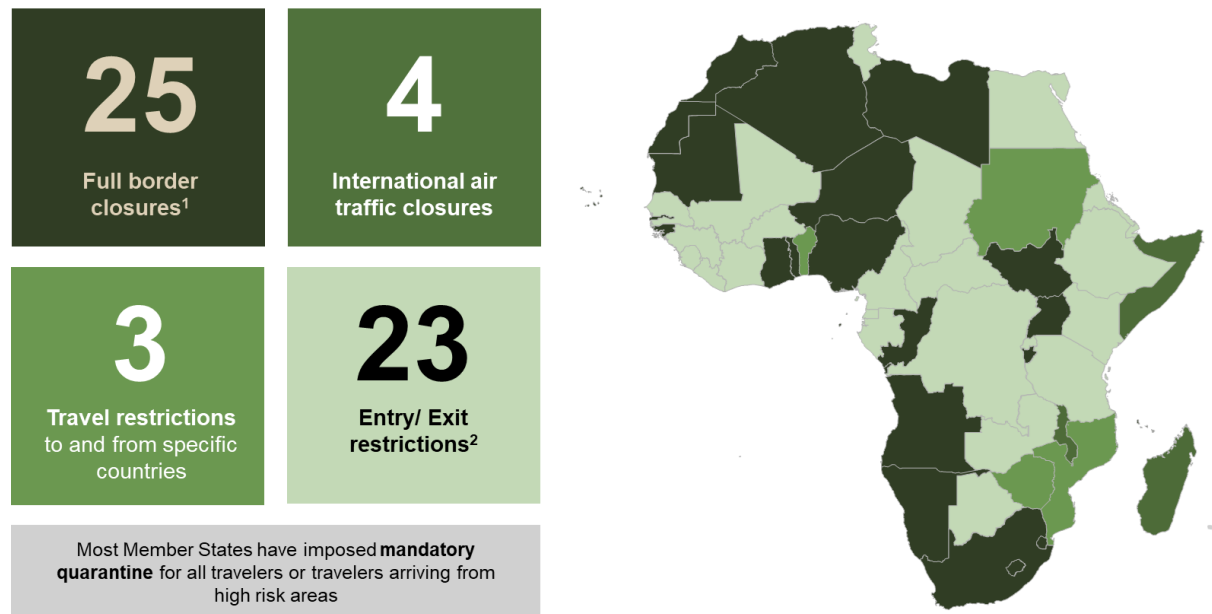
- A mathematical modelling assessed the community-wide impact of various control and mitigation strategies of COVID-19 in Nigeria. [The model indicates that where social-distancing, lockdown and other community transmission reduction measures are not implemented, a devastatingly high COVID-19 mortality would have been recorded by April 2021. Findings suggest the lockdown measures need to be maintained for at least three to four months to lead to the effective containment of COVID-19. Relaxing, or fully lifting the lockdown measures sooner may trigger a deadly second wave of the pandemic.](#) (Not Peer Reviewed)
- A study assessed the impact of non-pharmaceutical control measures and mass testing on the spread of COVID-19 in Nigeria. [The model indicates that Nigeria will be able to halt the spread of COVID-19 when the compliance with intervention measures is moderate and the testing rate per day is moderate or when the compliance with intervention measures is strict and the testing rate per day is poor. Findings suggest achieving a testing rate of at least 0.3 per day while ensuring that all the citizens strictly comply with wearing face masks and observing social distancing in public will enable the country to halt the spread of COVID-19.](#) (Not Peer Reviewed)

#### Others

- A mathematical modelling study estimated the viral load emitted by individuals breathing normally or coughing, and the concentrations expected in the simulated room at different ventilation rates. [Breathing and coughing were estimated to release thousands to millions of virus copies per cubic meter in a room with an individual with COVID-19 with a high viral load. Findings suggest that strict respiratory protection may be needed when there is a chance to be in the same small room with an individual, whether symptomatic or not, especially for a prolonged period.](#)

## D. Summary of travel restrictions implemented by Member States

Contents of this section include only publicly announced public health policies. Sources of this section include official government communique, embassy alerts and press search. (As of 08 August 2020)

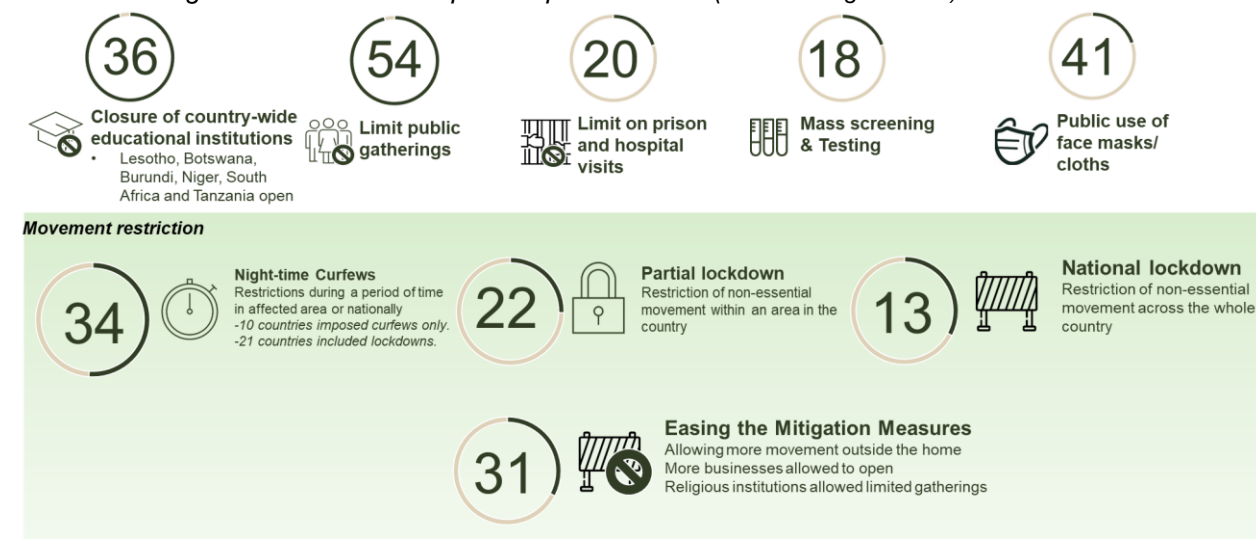


- 1 Some countries still allow cargo, freight and emergency transport into and out of the country; Some MSs will still allow citizens and residents to enter but all borders are essentially closed
- 2 Entry or exit of passengers through COVID-19 screening

For further detailed information for each country, refer to the full table [here](#).

## E. Summary of physical distancing measures taken by Member States

Contents of this section include only publicly announced public health policies. Sources of this section include official government communique and press search. (as of 08 August 2020)



# of Member States that ■ Have implemented ■ Have not implemented

\*Source of information based on official reports, embassy alerts and press scanning

For further detailed information for each country, refer to the full table [here](#).



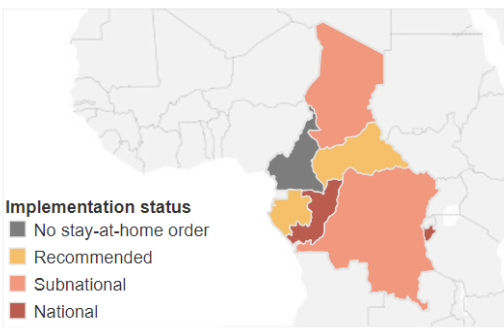
Kindly note the following data is retrieved from the Partnership for Evidence-Based Response to COVID-19 (PERC) initiative.

Key trends on public health and social measures:

Across all regions, reports of non-adherence to PHSMs are growing, often fueled by government mistrust, economic frustration and rampant misinformation narratives. On social media, users blame governments for benefiting from COVID-19 and some doubt whether the virus exists at all. Others warn against trusting a ‘western’ COVID-19 vaccine. Media report people are refusing to wear masks in public. Coupled with easing of curfews and lockdowns in some countries, this concerning trend places countries at risk for new outbreaks.

REGIONAL HIGHLIGHTS

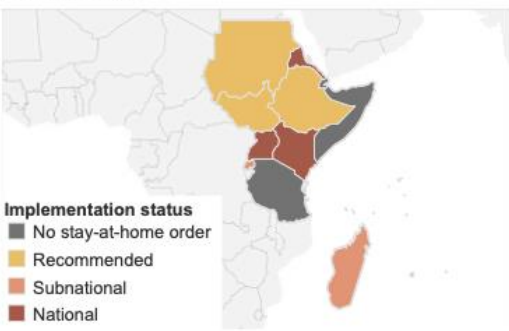
Status of Stay-at-Home-Orders in Central Africa as of 27 July



**In Central Africa.**

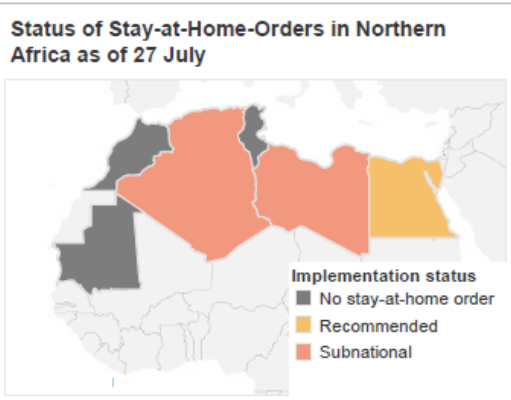
Social media discussion of PHSMs and personal protective equipment (PPE) suggests that some social media users in DRC do not believe in the efficacy of PPE and do not use it.

Status of Stay-at-Home-Orders in Eastern Africa as of 27 July



**In Eastern Africa.**

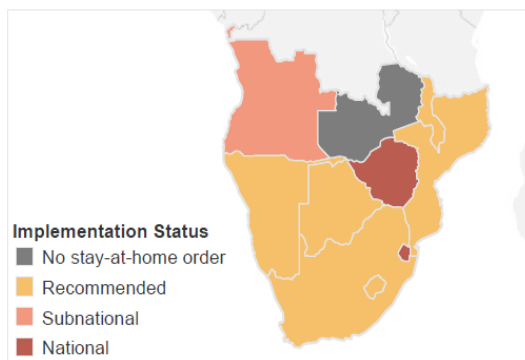
The economic burdens of PHSMs, including unemployment and food insecurity, continue to dominate traditional and social media coverage. Health officials in Kenya [reported](#) that cases of maternal and child death are likely on the rise as the nationwide curfew restricts some women from giving birth at hospitals.



**In Northern Africa.**

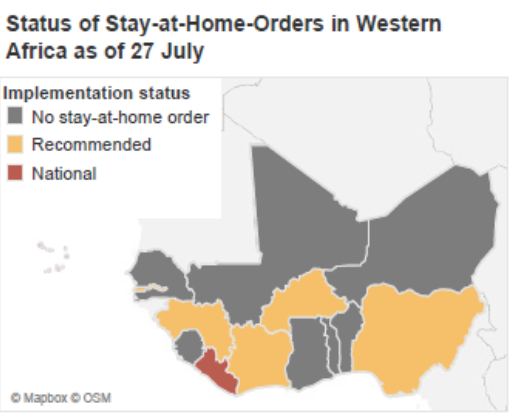
All countries in the Northern Africa region that reported changes to PHSM implementation in the two weeks from 14-27 July loosened their measures, including reopening cafes, restaurants and stores at partial capacity.

**Status of Stay-at-Home-Orders in Southern Africa as of 27 July**



**In Southern Africa**

Southern African governments continue to adjust PHSMs to counter rapid acceleration. While some countries continued to loosen restrictions (Botswana, Eswatini, Namibia), others are extending or tightening measures (Lesotho, Mozambique, South Africa, Zimbabwe).



**In Western Africa**

All countries in the Western region that reported changes to PHSM implementation in the past two weeks loosened their measures, including resuming domestic travel and opening mosques, churches, and universities. However, several countries extended their states of emergency.

**SPOTLIGHT: HEALTH CARE WORKER BURDEN**

**More than 11,000 health care workers have tested positive for COVID-19.** Demands from health care workers for fair compensation and better personal protective equipment (PPE) are on the rise. The increasing caseload across Africa means that health care workers will only be stretched further in coming days and weeks. Key challenges include:

- Inconsistent reporting on the number of COVID-19 cases, recovery and deaths among health care workers in Africa.

- Shortage of personal protective equipment (PPE) and testing kits, as well as delays in testing results. All health care workers, whether treating COVID-19 patients or not, are at risk of getting COVID-19 unless they have the proper equipment and training, since they are in close contact with people who may be asymptomatic.
- Long working hours, psychological distress and fatigue, and in some cases, community stigma.

Please find all PERC resources here: <https://preventepidemics.org/covid19/perc/>

## F. Registered Clinical Trials in Africa

### Key updates:

#### Clinical trial initiatives and networks

- On 29 July 2020, WHO published the [Draft Target Product Profiles \(TPP\) for treatment of COVID-19](#) in hospitalized patients.
- On 5 August 2020, WHO published the [Draft Target Product Profiles \(TPP\) for priority COVID-19 diagnostics](#).
- On 7 August 2020, [Serum Institute of India \(SII\) announced a landmark partnership with Gavi, The Vaccine Alliance and the Bill & Melinda Gates Foundation](#), to accelerate the manufacture and delivery of up to 100 million doses of the AstraZeneca and Novavax COVID-19 vaccines in low- and middle-income countries (LMICs) if successful in attaining WHO Prequalification. Under the Gavi COVAX AMC mechanism, this initiative will allow access to the vaccines at a ceiling price of US\$ 3 per dose.

#### Vaccine trials

- On 31 July 2020, the updated [WHO landscape of COVID-19 vaccines](#) was published. **Twenty-seven vaccine candidates were at the clinical evaluation stage** with six already at phase III: 1 non replicating viral vector candidate (ChAdOx1-S vaccine by University of Oxford/ AstraZeneca), 3 inactivated candidates (by Sinovac, Wuhan Institute of Biological Products/Sinopharm and Beijing Institute of Biological Products/Sinopharm) and 2 mRNA vaccine candidates (by Moderna/NIAID and by BioNTech/Fosun Pharma/Pfizer).
- On 4 August 2020, [MVI announced that the Canadian government agencies would contribute up to CA\\$4.75 million to advance Phase 1 clinical development of the DPX-COVID-19 vaccine candidate](#). DPX-based vaccines are fully synthetic, with the potential for faster and larger-scale manufacturing and delivery compared to more conventional vaccines.

#### Therapeutics trials:

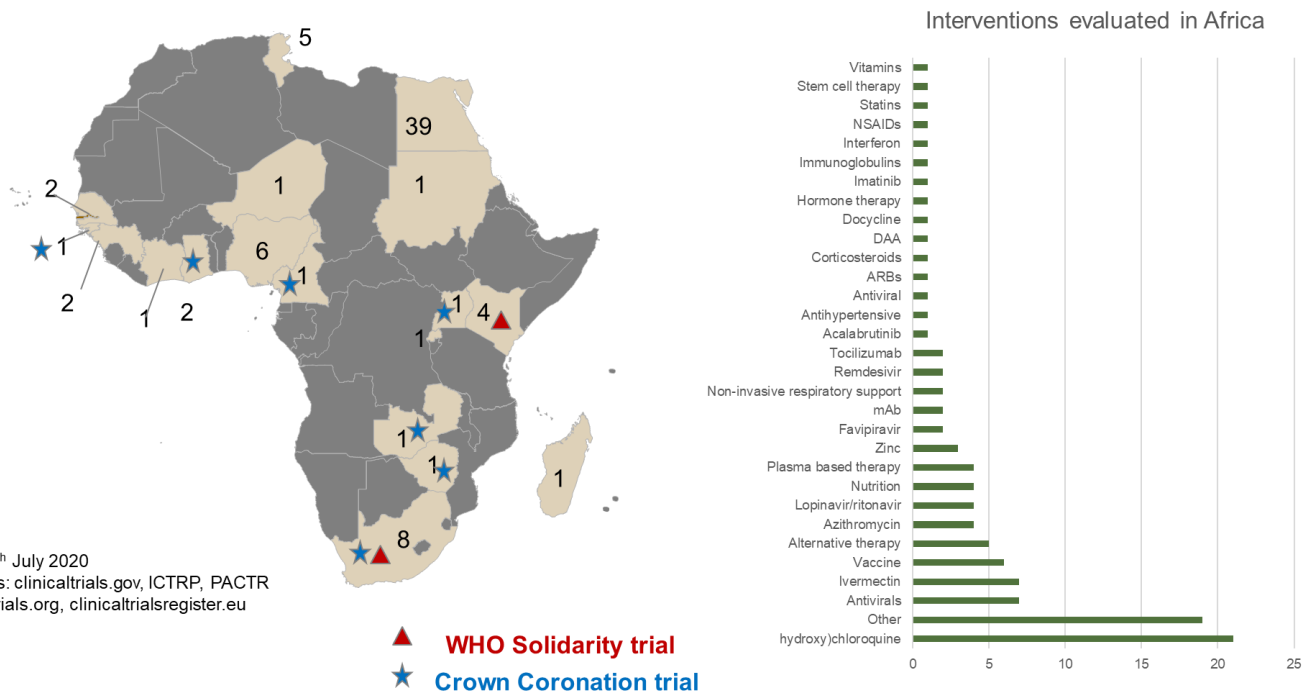
- On 31<sup>st</sup> July 2020, the [FDA granted Revive Therapeutics approval](#) for a Phase 3 clinical trial to evaluate the safety and efficacy of Bucillamine in patients with mild-moderate COVID-19. Bucillamine, routinely prescribed in the treatment of rheumatoid arthritis in Japan and South Korea, has the potential to lessen the destructive consequences of SARS-CoV2 infection in the lungs and attenuate the clinical course of COVID-19.

- On August 5<sup>th</sup>, 2020 the NIH announced the [Adaptive COVID-19 Treatment Trial 3 \(ACTT 3\) study](#), a randomized, controlled clinical trial evaluating the safety and efficacy of a Remdesivir and interferon beta-1a treatment regimen in COVID-19 patients.

Immunotherapy trials:

- On August 4<sup>th</sup> 2020, NIH announced [the ACTIV-2 trial](#), a Phase 2 *Clinical Trial to Test Antibodies and Other Experimental Therapeutics for Mild and Moderate COVID-19* aiming to assess the safety and efficacy of LY-CoV555, an investigational monoclonal antibody made by Eli Lilly and Company, to treat the disease. If the investigational mAbs show promise, the study would expand from a Phase 2 to the [NIH ACTIV-3 trial](#), a phase 3 randomized controlled Clinical Trial to Test Antibody Treatment in Hospitalized COVID-19 Patients, to gather additional critical data from a larger pool of volunteers without delay. The study protocol can be also adapted to test additional therapeutics.

By August 9<sup>th</sup> 2020, there were **72 interventional clinical trials registered in Africa, including 2 multi-centric trials.**



The following clinical trials registers have been scanned: clinicaltrials.gov, covid-trials.org, clinicaltrialsregister.eu, the [Pan African Clinical Trial Registry \(PACTR\)](#) and [WHO international clinical trials registry \(ICTRP\)](#). Search terms used included: “COVID” (subject field) AND “interventional” OR “Randomized” (study type). Studies conducted in all 55 African Union member states are listed after cross checking for duplicates across registries with multi-centric trials listed as one entry.

For further detailed information for each country, refer to the full table [here](#)